M/053/005

Norman H. Bangerter
Governor
Kenneth L. Alkema
Executive Director
Don A. Ostler, P.E.
Director

# State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY

288 North 1460 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870
(801) 538-6146
(801) 538-6016 Fax



June 19, 1992

Mr. Dale Ross
Acting Area Manager
Bureau of Land Management
Dixie Resource Area Office
225 North Bluff Street
St. George, Utah 84770

RE: Goldstrike Mine - Draft Environmental Assessment

Dear Mr. Ross:

We have completed review of the referenced report dated February 19, 1992 and revised pages were received on June 5, 1992. We have the following comments pertaining to water quality:

1. Because of problems associated with valley fill leach pads, we discourage any further construction of valley fill pads unless it can be demonstrated that a valley fill pad can be constructed to adequately safeguard against potential release of pollutants to the ground water. Leach Pad No. 3 is proposed as a valley fill type pad.

2. The process ponds and make-up water ponds are sized to provide reserved storage of storm water runoff from the leach pads and rainfall in the ponds. The design for sizing the ponds is based on a 100-year 24-hour storm event. Storm frequencies within 24 hours normally are the bases for designing a storm drainage system in which the facility will be reestablished to a condition prior the storm in a short period of time say 24 hours. Sizing the process ponds for a 100-year 24-hour storm event is inappropriate because no plan has been proposed to reestablish the process ponds to a condition prior to the storm within a short time period of time. Either additional storage will be needed to provide storage for multiple storm events; or a contingency plan will need to be developed for quickly reestablishing the available storage or both.

3. The proposal for neutralizing the leach pads does not address potential rebound of cyanide levels that may take place over a long period of time.

4. In Page 64 of the report, discussion on water quality is generally satisfactory but is short on overall details. We agree that very little acid will be generated since most of the activity will be well within the oxidized zone. The product of neutralization - sulfate, is a problem. Thus all highly pyrite rocks that will invariably be found, will require special handling.

5. The report did not state if any existing monitoring wells need to be removed for expansion. If so, they will need to be replaced.

   Because of buried sulfide rock and past accidental spills, post closure monitoring may be required when mining is finished.

If we can be of further assistance, please contact Mr. Lyle W. Stott or Mack Croft of my staff.

Sincerely,

Don A. Ostler, P.E.
Director

DAO:LWS:rvg

cc: Mr. Wayne Thomas, P.E. Southwest District Health Department
Mr. Ken Kluksdahl, Tenneco Minerals
Wayne Hedberg, Division of Oil Gas & Mining

N:GLSK-ENV.XXX:
FILE:INDUSTRIAL